JAPAN TYPOGRAPHY

Characteristic Features of Japanese Typography There are several differences between Japanese and, let us say, Euro-American typography. The most distinctive is newspaper, magazine and book typesetting, which is usually done from top to bottom. Even comics are printed this way. When writing from top to bottom, the lines go from right to left. Newspapers, magazines and books are opened from the right and the pages are turned from right to left and read from top to bottom. So the major feature of text typesetting in printed material is its vertical direction. However a text written from left to right is also legible in Japanese. This is due to the many years of the use of a typewriter and word processor. Internet websites are usually written horizontally and printed material also appears on a small scale written from left to right. It is better to write from left to right when there is a combination of Japanese characters and Roman letters because the Roman type written from top to bottom is not exactly the most legible. When typesetting the Roman typeface, the basic unit is the letters that make up the word. However in Japanese the basic unit is considered to be the symbol. Each has its meaning, the symbols of hiragana and katakana emerged from Chinese characters and are visually independent. It is therefore possible to break a line almost after any character without it causing problems with reading—this is the greatest difference between Japanese and Roman typefaces.

Kinds of Typefaces Japanese typefaces have a defined so-called virtual body, which is a square in which the symbol is placed. The height of the square marks the size of the typeface. The width of the square is equal for all glyphs in the font. However each glyph placed in the square are of a different width and the fonts also contain information about the actual width of each glyph. Japanese typefaces may be divided into four kinds. These are mincho, gothic, hand-written and design typeface called Typos. Mincho is roughly equivalent to Roman serif typeface and Gothic to sans serif. Both typefaces are used mostly in printed material designed for reading (newspapers, magazines, books). Hand-written type is used in connection with various events and things that retain the traditional feature, form and character (calligraphy, lists of sumo wrestlers, tombstones etc.). Design typeface needs no commentary. The thickness of certain kinds of the Japanese fonts is marked in the same way as for the Roman (light, medium, bold...), but usually the thickness is marked with the aid of a scale from W1 to W12, i.e. from the thinnest to the thickest typeface. There are no Italics in Japanese because since its beginnings Japanese has been written from top to bottom. (The new OpenType Pro font contains Italic Roman symbols, evidently due to better enhance the texts—Italics is here as the special function of OT fonts—editorial office note) The size of the font in Japan is normally marked in points (pt). An exception being those used as a size unit for a typeface Q (kiu), which may be converted on a scale (1 Q = 0.25 mm). This unit has its roots in traditional hand typesetting. Another original

Japanese unit is Ha—space unit (1 Ha = 0.25 mm)—that may be set for symbols and lines. The Japanese count for the size of spaces is somewhat different to the Euro-American count.

How to Convert Japanese to a Computer A phonetic transcription is applied according to the Hepburn Romanising system when Japanese is converted to a computer. When writing, the words are displayed on the screen in the hiragana alphabet symbols. After writing a word you use the space bar to choose whether to leave the word in hiragana, or write it in katakana, in a Chinese character or a combination of all. An examplecan be the word for spring— "HARU". First you write HA then press the "H" and "A" keys. The symbol automatically appears on the screen written in hiragana. In the same manner you write RU. The whole word is now displayed on the screen in hiragana. You now press the space bar and from the menu you pick the relevant Chinese character meaning spring. You have to be careful because in the menu the word HARU is displayed in katakana, hiragana and several other Chinese characters that are pronounced HARU, but mean something else and are written differently. In the Japanese written text there is no spacing between words even after a comma and full stop (here the circle is used in Japanese), question or exclamation mark at the end of a sentence and not even brackets or parentheses.

Software Nearly all versions of Adobe Illustrator possess a function designed to typeset the Japanese, Korean or Chinese text. Here, for example, these functions are called in Japanese Tsume (proportional spacing of symbols), Kinsoku Shori (line break) or even Wari-Chu (a divided note or comment). It is also possible to write from top to bottom in Illustrator. Unfortunately neither the English or Japanese version can work correctly with Czech or Polish. Virtually any kind of software that can work with Japanese can be applied to the low-end print of the text in Japanese, but if you want good quality typesetting with detailed setting of preferences and effective application, the best, of course, are the Japanese DTP programmes. When printing Japanese outside Japan, the safest way is to convert the Japanese text to outlines because printers do not have the Japanese hard and software. (Good programmes, for this reason, are Adobe Illustrator and the Japanese version of Adobe InDesign.)

In Practice:
Page Layout The textblock for a text typeset from top to bottom has the same ratio of sides as the page format, the textblock is centred (i.e. the margins are all the same) and its size ranges between 50 and 60% of the size of a page. The textblock for a text typeset horizontally is defined according the European standards. The Japanese version of InDesign contains a highly useful function—Frame Grid (a text frame with a grid), featuring a grid dividing the text frame into small squares of the size of a virtual body. The frame grid allows the adjusting of the type size, character spaces, vertical space between lines (leading), number of lines in the text frame, number of charcters on a line and so on; you can visually check the set of preferences before the actual typesetting. The frame grid function is inspired by the procedures used in traditional Japanese typesetting.
Type Size, Character Spaces and Line Leading The standard text size for reading is 10 Q—14 Q (7.09 pt—9.92 pt). When writing in a vertical direction, the spaces between characters are usually set to zero value (Q = Ha). It is not recommended for the Ha value to be less than the Q value. Even when writing in a horizontal direction, the Ha value is usually equivalent to the Q value. However because hiragana and katakana symbols in particular differ in width, irregular spacing appears in the text. This problem is resolved in Illustrator applying the function

Tsume—Japanese fonts have information about the actual width of the individual symbols on the basis of which this function aligns the proportional space between the symbols. The vertical space between lines is normally set to half the size of the font or up to its actual size. But Tsume is not used in a vertically typeset text.

Paragraph In a text written from left to right the paragraphs are most often justified. This is usually necessary when combining Japanese with the Roman characters or Arabic numerals. All Japanese characters have the same width and if the text contains only these characters, the paragraph is normally aligned on the both edges (if the Tsume function is not applied, of course). Neither Arabic numerals nor the Roman charcters are used when writing a text from top to bottom. The first line of a paragraph is most frequently marked with an indent of the size of one Japanese character.

Typefaces The mincho and gothic typefaces of W2 and W3—light weight are most often used for book printing in Japan. It is not recommended to use a W7 weight and thicker (i.e. bold) for the standard typeface size (10 Q—14 Q) because Chinese characters are more complex in their detail and therefore become less legible with the use of a bolder typeface. Due to the fact that Japanese typefaces are designed for vertical writing, when the text is written horizontally it appears uneven and unbalanced. This is caused by the uneven width of the hiragana and katakana symbols. Hence some of the mincho typefaces contain a special glyphs for the horizontally written hiragana and katakana symbols. The gothic typefaces are designed more evenly so they do not require those special glyphs for writing hiragana and katakana characters.

Line Breaks A new line may not begin with a punctuation mark (circle, question mark, exclamation mark, comma, closing bracket, closing quotation marks, ...) just as in the Roman text. Likewise, the end of a line may not end with some punctuation marks (opening bracket, opening quotation marks, colon). A number may not be divided between two lines (decimal, Arabic numeral combined with a Japanese symbol). If a Japanese text contains words from a different language, the hyphenation rules of that language apply to them. Software can be used to automatically resolve problems with line breaks, in the Japanese Illustrator this is contolled by the function Kinsoku Shori. The rules of Japanese typography allow the circle and comma to protrude at the end of a line in an otherwise aligned text.

RUBY—Special Rule of Japanese Typography Ruby is an transliteration explaining the reading (pronunciation) of rarely used Chinese characters. It is used particularly to explain difficult to read characters or in texts designed for child readers. Ruby is written using hiragana or katakana at half the size of the actual text. In a text written from top to bottom Ruby is placed on the right of the Chinese character, in a text written horizontally Ruby is placed above the Chinese character.

Combination of Japanese with the Latin Script You can combine a Japanese text with Roman alphabet in a horizontal direction only because a text written vertically in Roman type is difficult to read. In a vertically written Japanese text it must be replaced by katakana; but if you insist on using the Roman type, it is good to turn the word by 90 degrees in a clockwise direction. When combining Japanese and Roman typefaces, care must be taken in choosing the kinds of typefaces. Japanese fonts also contain Roman letters, which may be applied, however in combination with an uncommon language—such as Czech (with its carons and acutes) –, the alaphabet of the Japanese font must be replaced by the original Central European font, for instance. Serif typefaces are appropriate in combination with a mincho typeface, while gothic typefaces are

appropriate in combination with sans serif. The weight of both typefaces should remain the same. However Japanese characters are always slightly bigger when seting the identical point size of a Roman and Japanese font, so the Roman has to be enlarged by about 10–20%. The baseline of Roman is always a little higher than the baseline of Japanese type, so it must be aligned. Some Japanese DTP applications allow to set all of the abovementioned parameters in its preferencies when combing two typefaces. A space between a Japanese character and a Roman word should be a quarter of em. A Japanese text when combined with a Roman type should have proportional spacing between the characters. A paragraph must be justified. Obviously further and more detailed rules exist which govern Japanese typography, but what is and will remain the most important aspect is that the printed text appears attractive to the eye and is simultaneously well legible.